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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,136	02/27/2004	Kee Yean Ng	70030844-1	9242
57299	7590	01/12/2006	EXAMINER	
AVAGO TECHNOLOGIES, INC.			HUSAR, STEPHEN F	
P.O. BOX 1920			ART UNIT	
DENVER, CO 80201-1920			PAPER NUMBER	
			2875	

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,136

Applicant(s)

NG ET AL.

Examiner

Stephen F. Husar

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-19 is/are rejected.
- 7) ☒ Claim(s) 5 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 6-8, filed 11/12/05, with respect to the rejection(s) of claim(s) 1-4 and 14 under 35USC102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the newly discovered art of McNulty et al. (6686676). Rejections based on this newly discovered art appear below.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 8 and 9 are not understood in that they contradict the limitation in claim 7, which they further limit. Claim 7 recites that the “second percentage is less than the first percentage” (line 2). Claim 8, which depends on claim 7, recites that “the first percentage is less than approximately one third of the second percentage” (lines 2-3). Claim 9 further recited that “the first percentage is less than approximately one half of the second percentage” (line 2). How can the first percentages be less than some fraction of the second percentages if claim 7 recites that the second percentage is less than the first percentage. It appears that claims 8 and 9 reverse the recitations of the first and second percentages to agree with claim 7 which they further limit. Clarification is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-4,6,7, and 17-19 are rejected under 35 U.S.C. 102(a) as being anticipated by McNulty et al. (6686676). McNulty et al. shows in Fig.1; a LED "20", a light reflecting surface "24" which may a reflective cup (see col.4, lines 61-63), a first encapsulant "30" that at least partially encapsulates the LED "20" and resides within the light reflecting cavity (note reference to reflective cup above), a second encapsulant "32" residing above the first encapsulant "30", first and second device terminals (shown but not labeled) which connect to the LED "20" and wherein the first encapsulant "30" comprises a first percentage of a first light reflecting substance "28". Re claims 2-3, note that the side surface of the LED "20" is partially and completely encapsulated by the first encapsulant "30". Re claim 4, note that the upper surface of the first encapsulant "30" resides above the upper surface of the LED "20". Re claim 6, note that McNulty et

al. shows in Fig.4; a second encapsulant "60" with a second light reflecting substance (see col.6, lines 46-60). Re claim 7, note that since the volume of the second encapsulant is significantly less than the volume of the first encapsulant the second percentage is inherently less than the first percentage. Re claim 17, note that particle size is disclosed as 40 microns (see col.5, lines 40-42). Re claim 18, see Table 1 in col.6 of McNulty et al. discloses calcium carbonate as calcite. Re claim 19; see col.3, lines 9-11, which discloses that glass or polymeric material that is substantially transparent as the first encapsulant.

Claim Rejections - 35 USC § 103

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNulty et al. (6686676). Re claims 14-16, these claims recite the method making the LED and are considered the obvious method of making the LED shown in Figs.1 and 4 of McNulty et al. Re claims 10-13, these claims are apparatus claims which recite a range for the first percentage being between 3 and 40 percent. McNulty et al. does not give a range for the first percentage of the first light reflecting substance only it

size. It is well known to discover the optimum or workable range or in this case percentage by routine experimentation (see MPEP 2144.05; In re Aller 220 F.2d 454,456, 105 USPQ 233, 235 (CCPA 1955). It would have been obvious to one of ordinary skill in the art at the time of the invention to establish an optimum or workable range in McNulty et al. of the first percentage of his light reflecting substance "28" in order to balance the ratio of light transmission to that of reflection in the first encapsulant.

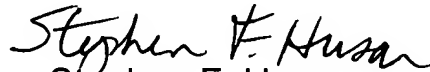
Allowable Subject Matter

9. Claims 5 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen F. Husar whose telephone number is 571-272-2371. The examiner can normally be reached on M-W and F from 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Stephen F. Husar
Primary Examiner
Art Unit 2875

SFH